INTERCOMPANY SERVICES COORDINATION PLAN

ENGINEERING RESPONSIBILITIES

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1. GENERAL

1.01 This section describes the responsibilities of the engineering design function in the handling of customer services coordinated under the Intercompany Services Coordination (ISC) Plan.

1.02 This section has been revised and replaces Issue 3. Because this is a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 One purpose of the ISC Plan is to provide coordination of Intercompany and Interarea services. Since the plan requires a high degree of interdepartmental cooperation, each department and its ISC representative should become familiar with the ISC organizational committees and teams. A basic understanding of the ISC Plan is imperative for its effectiveness and also enables departments and representatives to understand the way their functions fit into the plan's overall operation. A general description of ISC is provided in the first section of the plan, Section 010-520-100, Description.

1.04 Design responsibilities fall into the planning, implementation, or administration phases involved in a customer service to be handled under the ISC Plan. However, the overall goal is to specify the optimum combination of equipment, facilities, and design consistent with customer needs, by the most economical means. It must be realized that customers are not single-company customers but, for the most part, are extensive users of many Bell System services. Unsatisfactory operation of any single portion may adversely affect their outlook on all Bell System services.

1.05 The Design member of the Control ISC Team bears the major design responsibility for the planning phase of a customer service which requires team effort. Services requiring team effort in the planning phase are: (1) certain nonstock equipment having variable supply intervals, (2) those using uniquely designed or modified equipment, and (3) those which are of such magnitude or complexity that sales personnel cannot prepare the Universal Service Order (USO) in adequate detail for normal processing to commence. This phase ends when the USO is released by the Control Team.

1.06 The implementation phase covers all the design effort and activity involved in establishing the service. This phase begins upon receipt of the USO. The incumbent responsibilities are outlined in subsequent paragraphs.

1.07 The administrative or final phase begins with the use of the service by the customer. In this phase, design involvement will generally be at the request of Marketing, Plant, or Traffic personnel who are in direct contact with the customer. This usually concerns the operation of the service. Requests for design assistance, in

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these cases, should be made to the Control ISC Team Design member who handled the service start. Understanding and cooperation must prevail in these situations, so that troublesome conditions can be cleared at the earliest possible moment.

1.08 Guideline intervals for the flow of paperwork between various ISC groups involved in processing USOs are covered in the Interval Guide Procedures, Section (010-520-104).

2. ISC TEAM DESIGN/ENGINEERING MEMBER RESPONSIBILITIES

2.01 The application of the ISC Plan for the design function in each Company and Long Lines requires that an ISC Team Design member be designated for each Operating Area. This team member is responsible for the training and dissemination of information relating to administering the design portion of the plan.

2.02 The functions performed by the Design team member in the provision of services covered by the ISC Plan could include any or all of the following:

(a) Central Office equipment design.

(b) Station equipment design.

(c) Interoffice and local channel facility assignment, provision or rearrangement.

(d) Overall circuit layout (transmission, signaling, etc.)

(e) Placing of supply requisitions, or advice to those responsible for their preparation.

Note: All requisitions placed with suppliers should include the USO number, the customer name, the Assignment Date (AD), or Requisition Received Date (RRD) for projects or close coordination, and the Material On Job (MOJ) date. Requisitions should be received by the supplier on or before the RRD as defined in Section 010-520-100 and as required per Sections 010-520-104 and 010-520-105.

(f) Cost studies for rate determination purposes.

(g) Advise to Plant on maintenance spares, test equipment, and test methods.

(h) Consultation with Area or Company headquarters or Data Specialist Teams concerning orders for data services.

(i) Consultation, jointly with Marketing and Plant as required, with representatives of the business machine company, with private business communications managers, or with consultants on other services.

(j) Advise to engineers or design personnel of Independent Companies when requested by the Bell-Independent Relations (B-IR) representative.

(k) Prompt rendering of any design assistance required by other departmental representatives, regardless of Bell System Company affiliation, in any phase of planning, establishing or maintaining a customer service covered by the plan.

(l) Distribution of complete circuit design information (Circuit Layout Record) so as to be received by Plant on Record Arrival Date (RAD) which is one working day prior to the Designed, Verified and Assigned (DVA) date.

2.03 Some of these functions are assigned to bureaus operated by design personnel under administration of various departments. Regardless of how the functions are handled or by whom, all required aspects remain as design responsibilities and must be properly coordinated without delay.

2.04 Design responsibilities and functions under the ISC Plan fall into three separated, but related, categories. The first of these involve the Control Company, the assignment of which is covered in the section on Control Team Assignment (Section 010-520-103). The second involves the Local Control Company or Companies having customer locations on the ISC service. The third category is the Station Engineering Control Company which applies only to 2-point private line services. Normally this will be the Operating Telephone Company (OTC) which serves the territory of the Plant Control Office. The functions which fall into these Control, Local Control, and Station Control categories are outlined in subsequent paragraphs and are referred to as Engineering Control Office (ECO), Local Engineering Control Office (LECO), and Station Engineering Control Office (SECO) respectively. Control offices are specified in the USO Control section.

2.05 The ISC Team assuming overall service coordination responsibilities is designated the Control ISC Team, while all other ISC Teams involved in the USO are designated as Local Engineering Control ISC Teams. The Design representative on a Local Control ISC Team is known as the Local Control Engineering representative and the Design member on the Control ISC Team is known as the Control ISC Engineering member (generally referred to as the ECO in the Control Section of the USO). When a Station Engineering Control Office (SECO) is designated, this design or engineering representative will be known as the Station Engineering Control Engineer. Each ISC Team Design member must assume the basic responsibilities described in subsequent paragraphs.

2.06 The designated Design member of each ISC Team bears the primary responsibility for all design functions involved in his area or territory. In some cases, these assignments are delegated to personnel in other departments, but nonetheless remains a Design responsibility. USOs and related information may be handled by delegated representatives of the ISC Team. Organization charts showing the names and telephone numbers of these contacts, along with their responsibilities, should be distributed in the usual manner to those offices that require this information.

2.07 The design member of each ISC Team has the responsibility to attend all meetings of the team for the purpose of reviewing and/or resolving any ISC problems which involve design activities, or in which advise may be helpful. It is also the Design member's responsibility to call a meeting of team members when design problems arise in which other team members have an interest or could assist in the development of a solution. Assistance and advice may be required from the Design member in determining the department/work group responsible for a missed Due Date (DD).

2.08 Any Designer whose assistance is required in connection with any phase of an ISC service must act promptly to devote the effort required to satisfactorily perform the design functions. Chronic delays in discharging these functions should be referred to the responsible Administrative Team.

2.09 The basic systems and equipment design functions performed (including equipment and facility selection) by the ISC Engineering Control or Project Engineer must be accepted by all Local Engineering Control groups to avoid duplication of systems and design effort. In the event that questions concerning systems and/or equipment design cannot be resolved with the Control or Project Engineer, the matter should be promptly referred through lines of organzation to higher management.

3. ENGINEERING CONTROL OFFICE RESPONSIBILITIES

3.01 The ECO should be designated on all ISC services. When an ISC order involves two separate Engineering/Design Offices (areas), ECO must furnish design information on either the original USO (S&E Section) during the planning phase or on an EIR when SECO procedures are not applicable.

3.02 The ECO procedures and responsibilities are as follows:

(a) Assists sales personnel in preparing USOs requiring system planning or advance investigation and consideration.

(b) Receives USO and immediately and thoroughly analyzes, screening for accuracy and completeness.

(c) Consults sales or other communications specialists as applicable and appropriate throughout the "life" of the USO.

(d) Issues a Jeopardy Report at once and refers the matter to the responsible group if a design problem in any portion of the service is encountered.

(e) Arranges for all facilities and equipment within the ECO area of responsibility. This includes:

(1) Central Office equipment, provision and/or design.

(2) Interoffice facility assignment, provision and rearrangement.

(3) Placing of supply requisitions, or advice to those responsible for placement. (See paragraph 4.02(9).

(f) Processes EIRs from LECO(s) and SECO(s).

(g) Sends CEIR to LECO and SECO confirming their information, or requesting additions or corrections.

(h) Retains overall circuit responsibility, and thus, issues complete Circuit Layout Records to all involved parties.

(i) Receives completion report via the ISC Marketing Control Team member.

3.03 The ECO member of the Control ISC Team must bring into the planning phase of any service those departmental coordinates who can effectively discharge all the required responsibilities listed in 2.02. The ECO member's earliest activity in a proposed service to be handled under the ISC Plan may require consulation with the customer, jointly with the sales personnel. When service involves data transmission, CPE and/or interconnect communication systems; consideration should be given to involving the Area Data Specialists or the DATEC Team, CPE manufacturing representatives and/or communication systems consultants as applicable and appropriate.

3.04 The ECO member may encounter requirements for new or modified equipment not currently available. In such cases, the ECO member should consult through normal lines of organization concerning this provision. When it is determined that an item has limited application, it may be agreed that the item be designed or contracted locally in lieu of systemwide application. When interstate tariffs are required, referral to Long Lines is necessary and is to be processed under the Development Inquiry (DI) procedure.

3.05 In preparing the overall circuit design, consideration should be given to allow for latitude and flexibility in providing specific equipment items in the LECO and SECO areas. Engineering specifications normally call for the latest vintage of equipment; but companies or areas may still be using equivalent equipment in stock, and substitutions should be permitted when applicable. Questions concerning substitutions should be resolved between the ISC Teams (SECO when station equipment is involved). However, no substitutions or changes should be made without the knowledge and concurrence of the ECO member. The ECO member must have knowledge of exactly what is being provided at all locations so that complete and accurate circuit layout records can be provided and overall circuit compatibility ensured.

3.06 When supplier coordination is specified, the ECO member at the earliest convenience should inform supplier coordinates on the Control Team of all pertinent circuit requirements so that the proper coordination may preclude manufacturing problems. The ECO must see to it that supply schedules meet the scheduled service dates. Any procurement problems that will or may affect the service should initiate a Jeopardy report to the ISC Team members and to the Design members of the LECO and SECO Team(s) involved in the provision of the service.

3.07 The ECO will provide suppliers and Plant with installation, test and maintenance information on any equipment modified or designed by ECO.

4. LOCAL ENGINEERING CONTROL OFFICE RESPONSIBILITIES

4.01 LECO procedures and responsibilities are as follows:

(a) Assists sales personnel in preparing USOs requiring system planning or advance investigation and consideration.

(b) Receives USO and immediately and thoroughly analyzes, screening for accuracy and completeness.

(c) Consults sales or other communications specialists as applicable and appropriate throughout the "life" of the USO.

(d) Arranges for all equipment and facilities within the LECO area of responsibility. This includes:

(1) Central Office equipment, provision and/or design.

(2) Interoffice and local channel facility assignment, provision and rearrangement.

(3) Placing of supply requisitions, or advice to those responsible for placement.

Note: LECO may be responsible for additional functions outlined in 2.02.

4.02 Notifies by issuance of jeopardies to the ECO-ISC Team of any conditions which may affect successful completion of USO. The purpose and importance of such reporting cannot be overemphasized and is the basis by which the Control ISC Team keeps the customer informed and coordinates and resolves problems. The LECO also must respond promptly to all requests from the ECO in matters regarding the processing of a USO.

4.03 Promptly renders assistance required to resolve operational or maintenance problems. This includes consultations with, and joint action by, other ISC Team members, DATEC teams, maintenance personnel, other engineers, and OTC representatives.

4.04 Consults ECO promptly on all design problems, and refers any design problem to the responsible group for solution.

4.05 In preparing the overall circuit design, consideration should be given to allow for latitude and flexibility in providing specific equipment items in the LECO and SECO areas. Engineering specifications normally call for the latest vintage of equipment; but Companies or areas may still be using equivalent equipment in stock and substitutions should be permitted when applicable. Questions concerning substitutions should be resolved between the ISC Teams (SECO when station equipment is involved). However, no substitutions or changes should be made without the knowledge and concurrence of the ECO and LECO. The ECO member must have knowledge of exactly what is being provided at all locations so that complete and accurate circuit layout records can be prepared and overall circuit compatibility ensured.

4.06 Forwards to ECO all information pertinent to the provision of the service. See Section 010-520-114 for EIR requirements.

4.07 Provides installation forces and equipment suppliers with installation, test and maintenance information on any equipment modified or designed by LECO.

4.08 Receives CEIR from ECO which confirms the LECO-EIR. The CEIR may modify the original LECO-EIR.

4.09 Receives CLR from ECO and distributes locally.

5. STATION ENGINEERING CONTROL OFFICE RESPONSIBILITIES

5.01 Since multipoint Private Line service require additional coordination, the Control ISC Design member or office may suggest a suitable station arrangement for all locations involved. The Local Control members should follow this suggested arrangement. If this is not suitable, the Control Design member must be notified at once so that alternate configuration for all involved locations can be provided to preclude jeopardizing the service.

5.02 A SECO should be assigned on most two point services. When one is assigned, the SECO Engineer will be an OTC Engineer who has the station design responsibility for provision of equipment for one of the circuit locations and overall station compatibility. Further, SECO will generally be located in the PCO area.

5.03 The following services require SECO coordination:

(a) Private line services terminated in key equipment, telephone sets, CPE, etc.

(b) Tie trunks including tandem and intertandem operation.

(c) Off-premises stations.

(d) Foreign exchange lines—***Note:*** SECO for Foreign Exchange will always be the OTC serving the closed (station) end, regardless of PCO assignment.

(e) Alternate voice/data services.

(f) Services where customer-provided equipment are involved. The OTC Engineer will consult with the customer's representive, when required.

(g) For services involving one Independent Telephone Company, the SECO will usually be the OTC point regardless of PCO assignment or station location.

5.04 SECO procedures will not be required for the following services:

(a) Telegraph grade,

(b) Telegraph—alternate voice,

(c) SSN access lines or trunks,

(d) Telephoto,

(e) Two-point private line telephone services that are switched to multipoint lines (SS1 selective signaling applications, etc.),

(f) Two-point services terminating in two Independent Company locations,

(g) Multipoint services (more than two points).

5.05 Once a service has been assigned a SECO on the USO, SECO assignment will not change with subsequent changes to that service. This will ensure SECO coordination with every change in service. The SECO may be changed by a correction order when assigned in error.

5.06 When SECO encounters design problems with LECO or when ECO has not received EIRs from LECOs as anticipated, a jeopardy report should be issued.

5.07 The basic responsibility of SECO is to determine, from the USO, the type of station equipment and arrangements to be provided at the customer locations and to requisition the station equipment within the SECO area. When a station design is selected, SECO will contact the other involved Station Engineers and finalize the overall station layout.

5.08 SECO procedures and responsibilities are as follows:

(a) Assists sales personnel in preparing USOs requiring system planning or advance investigation and consideration.

(b) Receives USO and thoroughly analyzes, screening for completeness and accuracy.

(c) Consults LECO, ECO and communications specialists as applicable throughout the "life" of the USO.

(d) Arranges for all station equipment at the customer locations within his area of responsibility.

(e) Finalizes overall station layout with other area station engineers. See 6.07.

(f) Places supply requisitions.

(g) Notifies LECO at once of any condition adversely affecting successful completion of USO (normally via jeopardy report).

(h) Forwards to ECO, LECO and all involved station engineers via the EIR all information pertinent to the provision of station layout. This includes:

(1) Station equipment and requisition number

(2) Station design including signaling, supervision, etc.

(3) PBX trunks assignments.

When no changes occur at one of the station locations, a statement should be added to the EIR stating that no additional work is being performed at the designated station location.

(i) Provides installation forces and equipment suppliers with installation, test and maintenance information on any equipment modified or designed by SECO.

(j) Receives CEIR from ECO which confirms SECO-EIR. The CEIR may modify the original SECO-EIR.

(k) Receives CLR from LECO.

6. APPOINTMENT AND DUTIES OF THE PROJECT ENGINEER

6.01 Some of the larger and more complex customer services may require a Project team. Services requiring a Project Engineer are generally those which require special applications for the specific customer. Under such circumstances, the Control Team, upon advice of its Design member, will specify a Project Engineer (Section 010-520-110).

6.02 The Project Engineer is to assume responsibility for completing the planning and implementation

phases of the customer service requirements into an effectively operating communication system. The Design member of the Project Team will initiate and coordinate the required design activities. Where items of special or new design are required, the Project Engineer should consult with appropriate coordinates in the company headquarters.

6.03 These headquarters groups will consult with coordinates at the American Telephone and Telegraph Company and determine whether system design can be made available, or if the item is so limited in application that area or company development will have to be instigated, eg, specialized facilities or equipment.

6.04 In cases of customer service requirements involving major engineering effort, the Project Engineer may delegate to other engineering forces within the area, but the overall responsibility for the total engineering activity remains with the Project Engineer.

7. APPOINTMENT AND DUTIES OF THE ENGINEERING NETWORK MANAGER

7.01 On selected large customer networks, the Engineering Department should designate an Engineering Network Manager to act on a continuing basis. This individual is normally a management person in the Area that has the prime sales contact and who assumes the following responsibilities:

(a) Provides specific engineering and design to meet customer requirements.

(b) Assures that engineering and design of customer networks meets these criteria uniformly within the time prescribed.

(c) Serves as Engineering contact for other design groups and for Plant and Sales on an advising and consulting basis for the particular customer's total communication needs.

7.02 These responsibilities can only be accomplished through close coordination among Areas and acceptance of the Control Areas criteria by all involved groups. If a Long Lines Engineer is appointed Engineering Network Manager, the OTC serving the customer headquarters may be asked to appoint a Station Engineering Manager to work with the Engineering Network Manager on station arrangements.

7.03 Processing of individual USOs remains the responsibility of the ISC Teams with the technical support of the Engineering Network Manager and/or the Station Engineering Manager.